Elimination of Childhood Lead Poisoning in Detroit, Michigan

2004 Annual Report

Kwame M. Kilpatrick, Mayor

City of Detroit

Department of Health and Wellness Promotion

City of Detroit
Department of Health and Wellness Promotion (DHWP)

Childhood Lead Poisoning Prevention & Control Program

2004 Annual Surveillance Report

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Detroit Planning & Development Department, Housing Services Division

Detroiters Working for Environmental Justice

Healthy Homes = Healthy Kids / Leadbuster Program

CLEARCorp Detroit.

Dear Citizens of Detroit:

Over the past twelve months, the Department of Health and Wellness Promotion's Childhood Lead Poisoning Prevention and Control Program has worked diligently to bring the community, city, and state organizations together to collectively develop a plan to address the problem of childhood lead poisoning in the City of Detroit. This data book reflects the implementation of the Strategic Lead Poisoning Elimination Plan and gives a status report on the childhood lead poisoning issue in the city. The data in this report are based on the confirmatory results of all blood tests performed, in the City of Detroit, on children 5 years of age and younger.

This data book also is one method in which we utilize surveillance data in an effective and useful manner. The results presented help guide our program toward the goal of elimination of childhood lead poisoning. It also informs citizens and community leaders regarding the importance of collaborations to provide children in the City of Detroit a healthy and safe environment in which to grow and become productive citizens.

Due to the city's older housing stock, young children living in these homes will continue to be exposed to lead hazards. Timely and effective maintenance must be undertaken to control lead exposures in these older structures. Therefore, these collaborations are essential to meet these goals.

This data book will serve as a guide to move the city toward the goal of eliminating childhood lead poisoning by the year 2010.

Sincerely,

Noble Maseru, Ph.D., M.P.H.
Director and Health Officer
Department of Health & Wellness Promotion

Vincent R. Nathan, Ph.D., M.P.H.
Deputy Director
Department of Health & Wellness Promotion

DETROIT DHWP DEPARTMENT OF HEALTH & WELLNESS PROMOTION

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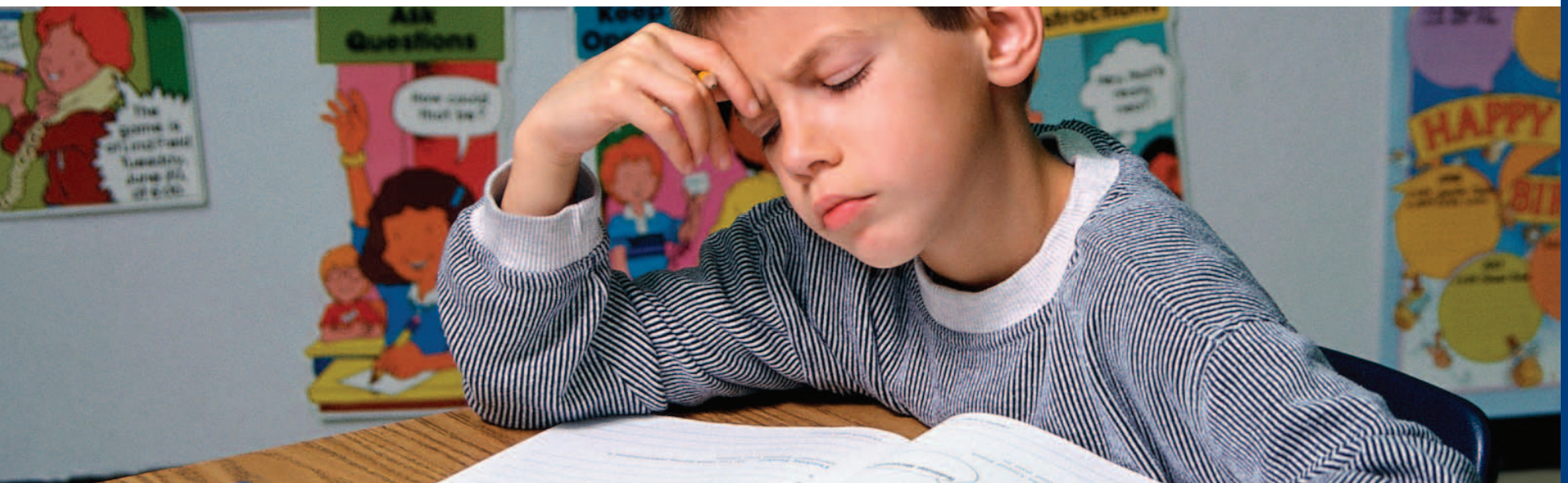


Executive Summary

The Department of Health and Wellness Promotion's (DHWP) Childhood Lead Poisoning Prevention and Control Program (DCLPP&CP) is pleased to present the first *Elimination of Childhood Lead Poisoning in Detroit,* Michigan: 2004 Annual Report.[†] The data presented in this document allow the DCLPP&CP to assess the success of our current and previous strategies, and recognize areas that need to be strengthened. We believe this information will provide residents, community organizations, policymakers and other interested stakeholders an update on the current status of the lead poison burden among the city's children under 6 years of age.

This data book is a tool to utilize surveillance data in an effective manner. The results presented not only help guide our program toward successful elimination of childhood lead poisoning, but also inform citizens and community leaders around the city about the importance of collaborating efforts to provide children a healthy, safe environment in which to grow and become productive citizens.

Detroit's Childhood Lead Poisoning Prevention and Control Program

The mission of DCLPP&CP is the prevention of childhood lead poisoning, identification and treatment of lead-burdened children, and facilitation of reducing environmental hazards in the home. In order to successfully achieve our mission the DCLPP&CP has:

- Implemented the Universal Testing Policy of all children under 6 years of age
- Implemented comprehensive case management protocols for lead-burdened children to include home visits from public health nurses and lead inspection / risk assessment investigations
- Maintained our surveillance system for data accuracy
- Distributed lead prevention education material and provided presentations to community professionals and citizens
- Developed a primary prevention program for pregnant women and families with non-lead poisoned children
- Established a High-Efficiency Particulate Air Filter Vacuum (HEPA Vac) loan program for Detroit residents

The Universal Testing Policy was approved by the U.S. Centers for Disease Control and Prevention (CDC) in October 2000 and implemented in 2001. The adoption of the Universal Testing Policy resulted in an increase of children identified with lead poisoning, which became a priority health issue for the State of Michigan and the City of Detroit.

Case management of children with elevated blood lead levels (EBLLs) involves providing, managing, and evaluating services required to reduce their blood lead levels (BLLs) below 10µg/dL. The DCLPP&CP public health nurses and state-certified risk assessors/lead inspectors are responsible for case management. Public health nurses, who oversee the medical case management, conduct home visits to assess factors that affect the child's EBLL in cases 10µg/dL or higher. They also educate parents on prevention and control of lead sources, and coordinate care with primary care providers to assure proper medical management and follow-up. The state-certified risk assessors/lead inspectors are responsible for residential case management of children under 6 years of age whose BLLs exceed 19 µg/dL. Environmental case management consists of a thorough investigation of the home to identify internal and external sources of environmental lead exposure, provide education to landlords and tenants on safe methods of lead hazard reduction, control, and code enforcement.

[†] This publication was supported by Grant/Cooperative Agreement Number US7/CCU522869-01 from the U.S. Centers for Disease Control and Prevention (CDC). The contents are solely the responsibility of the author and do not necessarily represent the official views of CDC.

STELLAR (Systematic Tracking of Elevated Lead Levels and Remediation) database is the surveillance system used to track children with EBLLs. It stores data for every child <6 years of age ever tested for lead in Detroit, allowing information for multiple tests and address information relating to a single child to aid in the tracking of the child up to the age of six.

Education and outreach have been the foundation of DCLPP&CP for more than 30 years. Thus far, our education and outreach activities have helped us make tremendous progress in increasing the public's awareness of prevention and treatment of lead poisoning. Increasing public awareness is also effective in cultivating community collaborations and ongoing partnerships with governmental, nongovernmental, and community-based agencies.

The primary prevention project extends services to pregnant women and children under six years of age with BLLs less than 10µg/dL living in high-risk areas. This program allows community health assistants to provide education on lead hazard reduction through an in-home demonstration on proper cleaning techniques.

Understanding the Data

The purpose of childhood blood lead surveillance is to monitor children's BLLs, collect data pertaining to the occurrence of elevated blood lead levels, and determine the sources of lead exposure. More important, surveillance activities provide information that forms the basis for testing children, evaluation, program planning, and public support of policy development. Once surveillance data are compiled and analyzed, the results are communicated to citizens, decision makers, and other key stakeholders around the city.

In Detroit, the Universal Testing Policy (which states that all children under 6 years of age in the City of Detroit must be tested) was implemented in 2001. Pediatric health care providers are required to test every child between 12 - 24 months, and 36 - 72 months who have no record of a previous test, and to provide guardians written documentation of the BLL test and explanation of the test

results. Lead testing consists of the collection of a blood sample from the child through a capillary (fingerstick) or a vein (venous test), and then analyzing the blood sample to determine the quantity of lead in the blood. Blood lead levels are measured and reported as micrograms of lead per deciliter of whole blood (µg/dL). The threshold, at which the CDC defines a child's blood lead level to be elevated is ≥ 10µg/dL. Children are not considered to have EBLLs if they do not have a "confirmatory" test. A confirmatory test is defined as either a venous test or a capillary test that is either followed by a venous test (within 1 month of the capillary test) or a subsequent capillary test (drawn 2 weeks after the first capillary test). If a child has a confirmatory test that is ≥ 20µg/dL, they are referred to the DCLPP&CP for an environmental investigation to determine the sources of the child's lead exposure.

The data in this report are based on the confirmatory results of all blood tests performed, in the City of Detroit, on children less than 6 years of age. It is important to note that a child who was tested in the city may not necessarily reside in Detroit. Therefore, reported numbers for screening will differ from those screened that reside in the city. For incidence and prevalence analyses, a child is represented only once in the year in which he/she was screened. Data regarding race and ethnicity are not included in this report because this information was incomplete or inaccurate in its entirety. However, the DCLPP&CP is working to establish uniform guidelines to accurately record race and ethnicity data to have a clearer description of the children stored in our database.

Data Facts

City of Detroit Risk Factor Demographics

Housing

Detroit has a high number of old, deteriorating housing units throughout the city. These units are the main source of lead poisoning among children that are younger than six years of age. The use of lead-based paint in residential housing was banned in the United States in 1978. Consequently, most of the houses built prior to 1978 contain lead-based paint. Although houses predating 1978 pose a high risk for exposing young children to lead (via leaded paint), houses built prior to 1950 pose an even greater risk due to the higher content of lead in the paint. As the City of Detroit reached its population peak in 1950, [1] the construction of housing structures increased to accommodate the population growth. As a result, 90% of the housing stock in the city was built prior to 1978.

According to 2000 U.S. Census data, [2] the City of Detroit currently has approximately 336,428 occupied housing units (55% owner occupied and 45% renter occupied). Approximately 56% of the occupied housing units were built prior to 1950. Figure 1 illustrates the percentage of pre-1950 housing units by zip codes. The blue and red shaded areas are those zip codes with more than 40% of the housing units predating 1950. The City of Detroit accounts for 19% of the houses built prior to 1950 in the State of Michigan and 1% in the United States.[2] Among the number of pre 1950 occupied housing units, 61% are owner occupied and 49% renter occupied. Figures 2 and 3 geographically illustrate (by census tract) where these units are located, with the darkest purple representing the highest percentage of pre-1950 owner / renter housing units.

Figure 2: City of Detroit Owner-Occupied Units

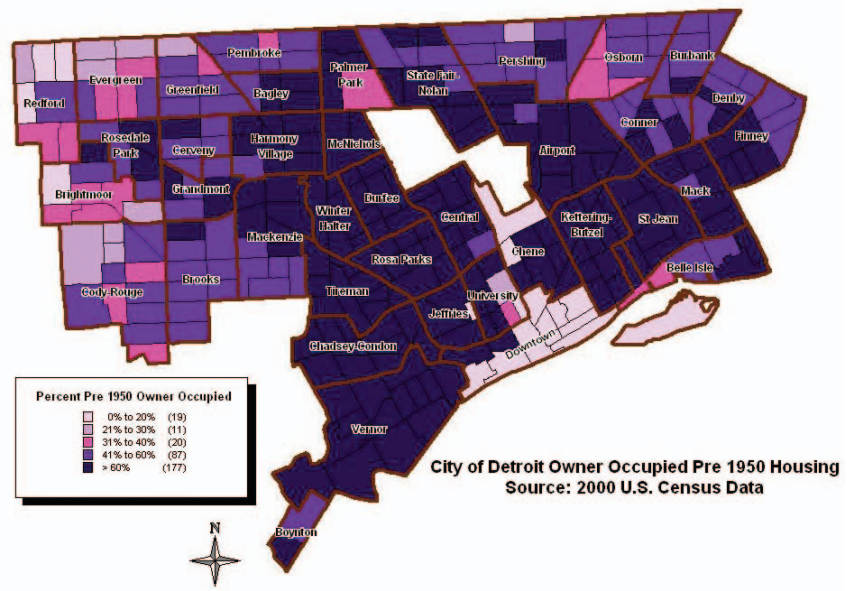
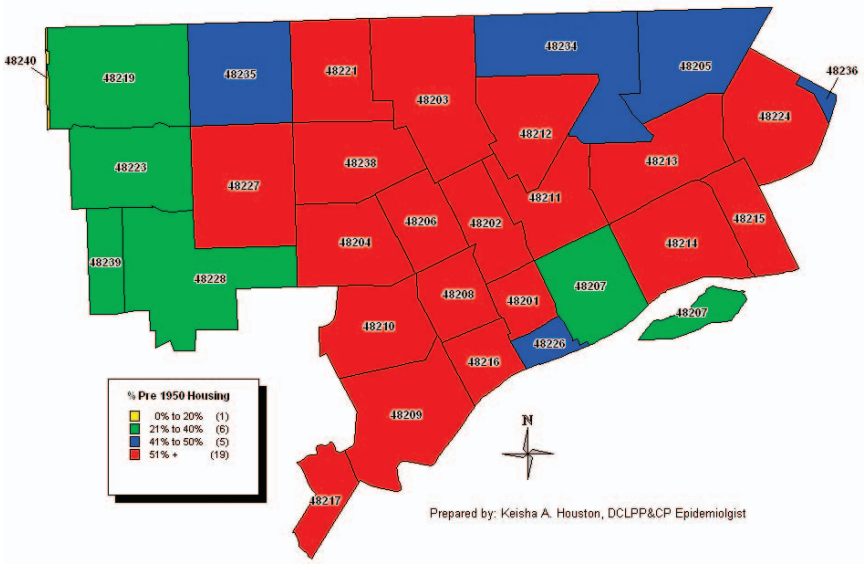
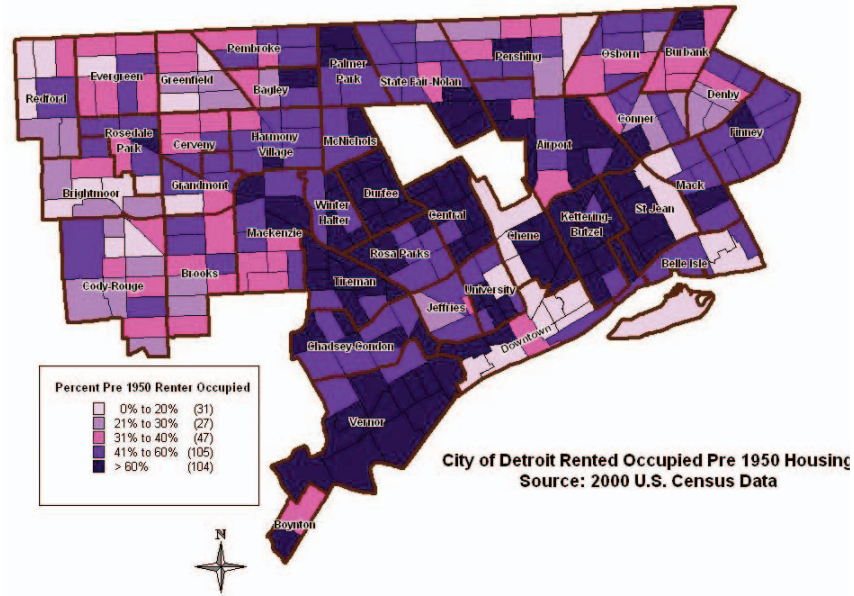


Figure 1: City of Detroit Pre-1950 Housing*



* Source: 2000 U.S. Census Data

Figure 3: City of Detroit Renter-Occupied Units

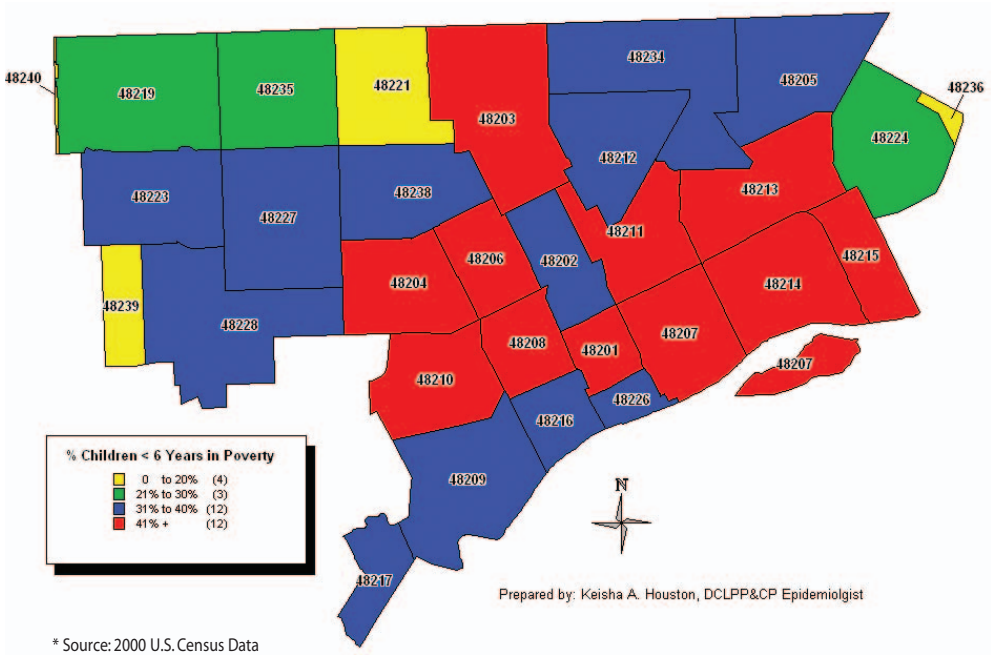


Poverty

Although houses predating 1978 are a major source of lead poisoning, economic status is directly related to the upkeep of the property. Homeowners who are financially limited usually do not have the funds to adequately maintain their property. Likewise, renters residing in Detroit whose household income is at or below poverty level do not have the luxury of shopping around for a lead-safe home, rather they reside in houses that suit them financially which are often poorly maintained.

According to the U.S. Census; 43% of the Detroit population, that recorded their 1999 income, had household earnings of less than $25,000, accounting for 15% of the households in the state earning less than $25,000 in 1999 (1,002,138). Detroit also accounted for 24% of the population in the state that lived below the poverty level. In Detroit, 14% of the population that lived below poverty in 1999 were children under the age of six. Even more surprising, 27% of the children less than 6 years living below poverty level in the state of Michigan were Detroit residents. Figure 4 illustrates the geographic location of the percentage of children under the age of six whose economic status was determined to be below poverty level for 1999 by zip codes in Detroit.

Figure 4: City of Detroit Children < 6 years in Poverty*

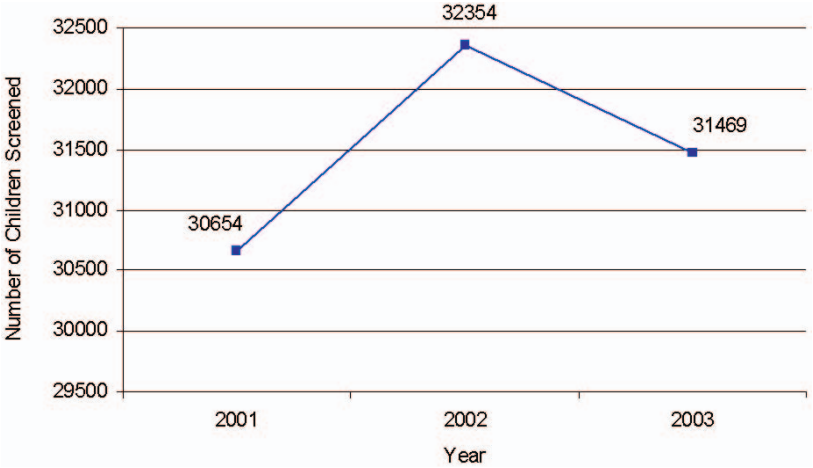


* Source: 2000 U.S. Census Data

Lead Screening

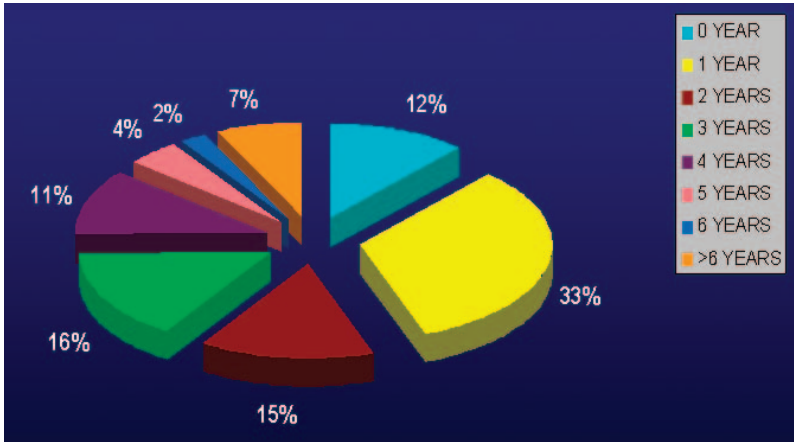
In 2003, a total of 31,469 children < 6 years of age were tested for lead poisoning in Detroit. The total number of children tested increased 2.7% when compared to 2001, and decreased 2.7% when compared to 2002 (figure 5). Of those 31,469 children tested, accurate address information was obtained for 94% (29,488) in 2003, 94% for 2002, and 93% for 2001. Table 1 illustrates the number of children tested living in Detroit (with valid addresses) by sub-communitites over the past three years. Over a six-year span (1998-2003) 76% of the population of Detroit residents that received an initial lead test were between the ages of 0 to 3 years (figure 6).

Figure 5: Detroit Screening Penetration of Children <6 Years*



* Source: DCLPP&CP Database

Figure 6: Children Tested at Least Once 1998-2003 by Age*



* Percent of children receiving an initial test for lead poisoning: Detroit Michigan: Keisha A. Houston, DCLPP&CP Epidemiologist. Source: DCLPP&CP Database

Table 1: Number of Children < 72 Months of Age Screened for Lead Poisoning 2001 to 2003*

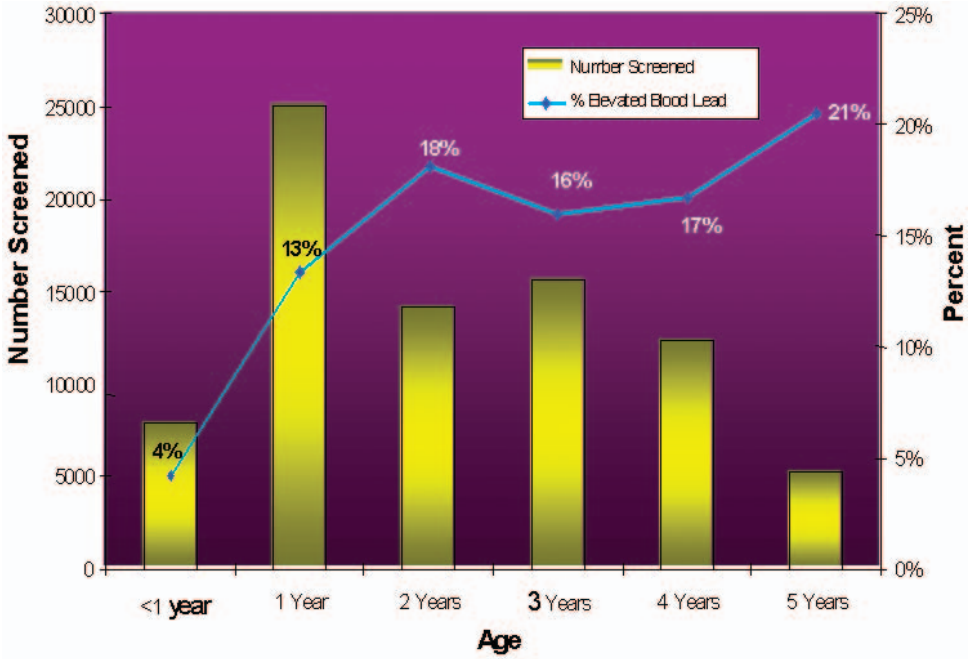
Detroit Subcommunity	2001	2002	2003
Airport	809	878	842
Bagley	351	366	353
Belle Isle	332	297	270
Boynton	149	171	161
Brightmoor	536	624	580
Brooks	953	982	1029
Burbank	935	962	926
Central	586	695	611
Cerveny	459	540	470
Chadsey-Codon	1,802	1,833	2,005
Chene	441	382	315
Cody-Rouge	1,105	1,265	1,322
Conner	1,296	1,279	1,205
Denby	707	816	732
Downtown	187	186	180
Durfee	862	908	814
Evergreen	874	978	936
Finney	845	904	834
Grandmont	649	665	624
Greenfield	565	726	675
Harmony Village	888	990	935
Jeffries	198	176	177
Kettering-Butzel	923	861	764
Mack	695	753	644
Mackenzie	1,084	1,196	1,129
McNichols	310	302	319
Osborn	1,052	1,187	1,117
Palmer Park	127	158	202
Pembroke	350	379	327
Pershing	1,043	1,185	1,233
Redford	434	513	499
Rosa Parks	935	840	854
Rosedale Park	349	415	392
St Jean	795	754	599
State Fair-Nolan	1,018	1,173	1,394
Tireman	938	873	882
University	260	229	257
Vernor	1,985	2,239	2,254
Winter Halter	640	699	626
Total	**28,467**	**30,379**	**29,488**

* Numbers do not include non-Detroit Residents

Childhood Lead Poisoning

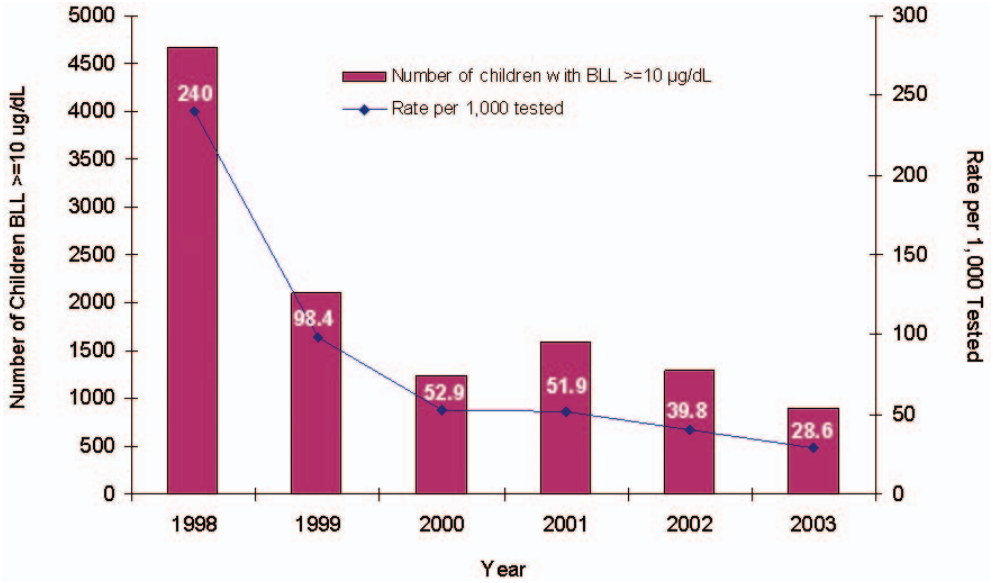
All children in Detroit are essentially at risk for being exposed to high levels of lead. Therefore, Detroit is ultimately charged with maintaining compliance with universal testing guidelines. Tremendous strides have been made in testing young children < 6 years. However, the data show that although most of the testing occurs in children 1 year of age, the percentage of children tested with elevated blood lead levels are higher among children 2-5 years, with age 5 being the highest (figure 7). The percentage of elevated blood lead levels among 5-year-old children (between 1998-2003) was 62% higher than 1-year-old children.

Figure 7: Screening Penetration by Age*



* Children < 6 years with lead levels ≥ 10 µg/dL, by year 1998-2003, Detroit, MI: Keisha A. Houston DCLPP&CP Epidemiologist
Source: DCLPP&CP Database

Figure 8: Decline in Number of Lead Poisoned Children*



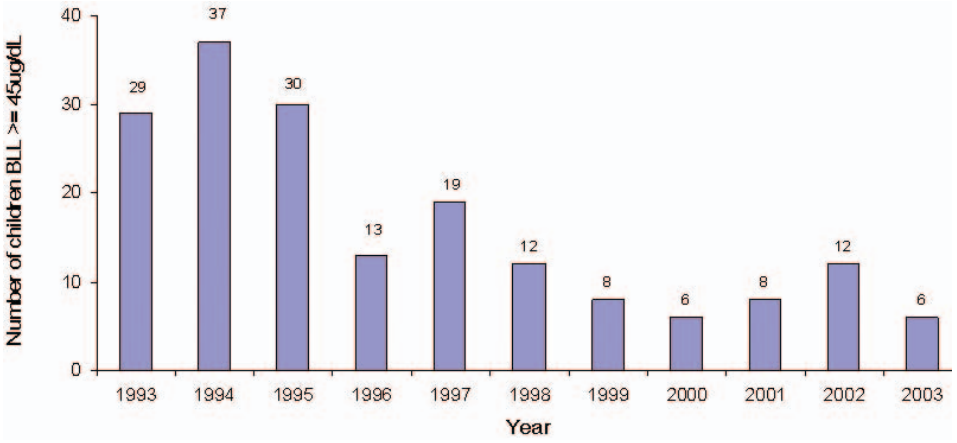
* Children less than 6 years of age, newly identified with blood lead levels >=10ug/dL (number and rate per 1,000 tested), by year, 1998-2003, Detroit Michigan: Keisha Houston DCLPP&CP Epidemiologist.. Source: DCLPP&CP Database

Incidence of Lead Poisoning

Incidence is defined as new cases of children, less than 6 years of age, who have never been previously lead poisoned. The DCLPP&CP uses STELLAR to track those children who become new cases. In 2003, only 3% of the children less than 6 years of age were identified as new lead cases, versus 24% in 1998 and 9.8% in 1999. In 2003, the incidence rate decreased by 28% (29 and 40 respectively) when compared to 2002 and decreased by 44% when compared to 2001 (29 and 52 respectively) (figure 8).

Very high levels of lead poisoning (70 µg/dL or higher) can cause life-threatening effects such as seizures, coma and death[3]. Abdominal pains, vomiting, constipation, change in appetite, irritability, and neurodevelopmental impairment are highly associated with lead levels above 44 µg/dL[4]. Treatment with chelation agents may be considered for children with severe lead levels (> 44 µg/dL) [3]. To date there were only 6 children under six years of age that were newly identified in 2003 with venous BLLs > 45 µg/dL (figure 9). When compared to 1994, there was an 84% decrease in the number of children with BLLs > 45 µg/dL in 2003.

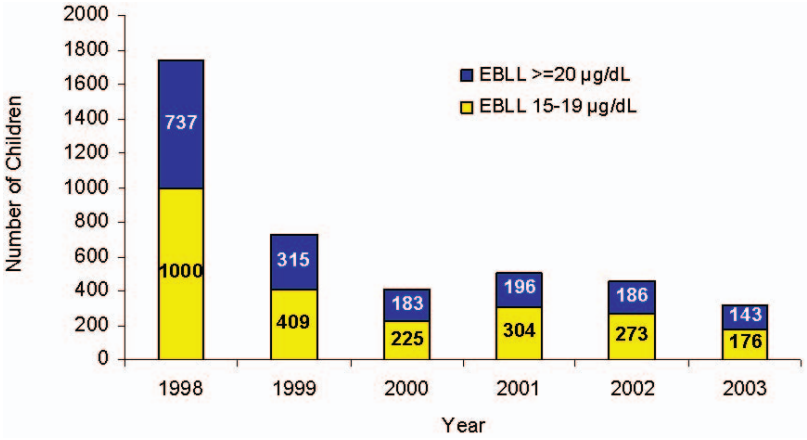
Figure 9: Dramatic Reduction in Severe Cases of Lead Poisoning*



* Number of children less than 6 years of age, newly identified with blood lead levels ≥ 45ug/dL, by year, 1993- 2003, Detroit Michigan: Keisha Houston, DCLPP&CP Epidemiologist.. Source: DCLPP&CP Database

The number of newly identified children in the environmental case management group has been steadily on the decline, defined by the DCLPP&CP as BLLs ≥ 20 µg/dL (figure 10). In 2003, the number of new environmental cases decreased markedly by 81% when compared to 1998 and continued to decline. The current protocol for intervention services offered, to children with elevated blood lead levels, by the DCLPP&CP is summarized in Table A of the Appendices.

Figure 10: Decrease in Children with Blood Levels in the Environmental Category*

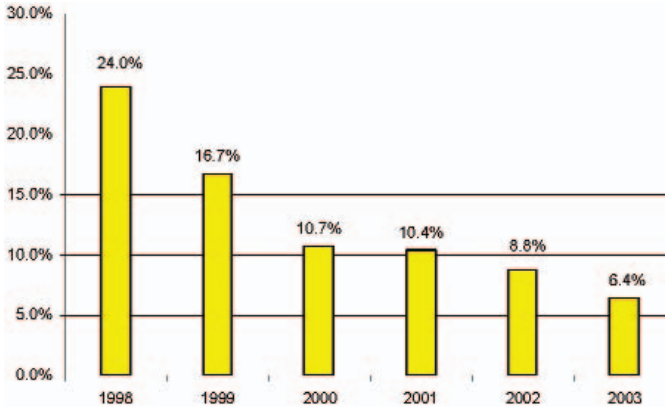


* Number of children (< 6 years) newly identified in the environmental blood lead level category: The DCLPP&CP defined the environmental intervention blood lead level as ≥ 20 ug/dL Detroit Michigan: Keisha Houston DCLPP&CP Epidemiologist, 1998-2003. Source: DCLPP&CP Database

Prevalence of Lead Poisoning

The prevalence of lead poisoning is defined as the number of children under the age of six who have elevated lead levels in the city at a specific point in time (figure 11). The data show an 73% decrease in the prevalence of lead poisoning over the last six years, from 24% in 1998 to 6.4% in 2003. This decrease may be attributed to the heightened awareness of the effects of lead poisoning over the past few years.

Figure 11: Prevalence of Lead Poisoning Citywide 1998-2003*

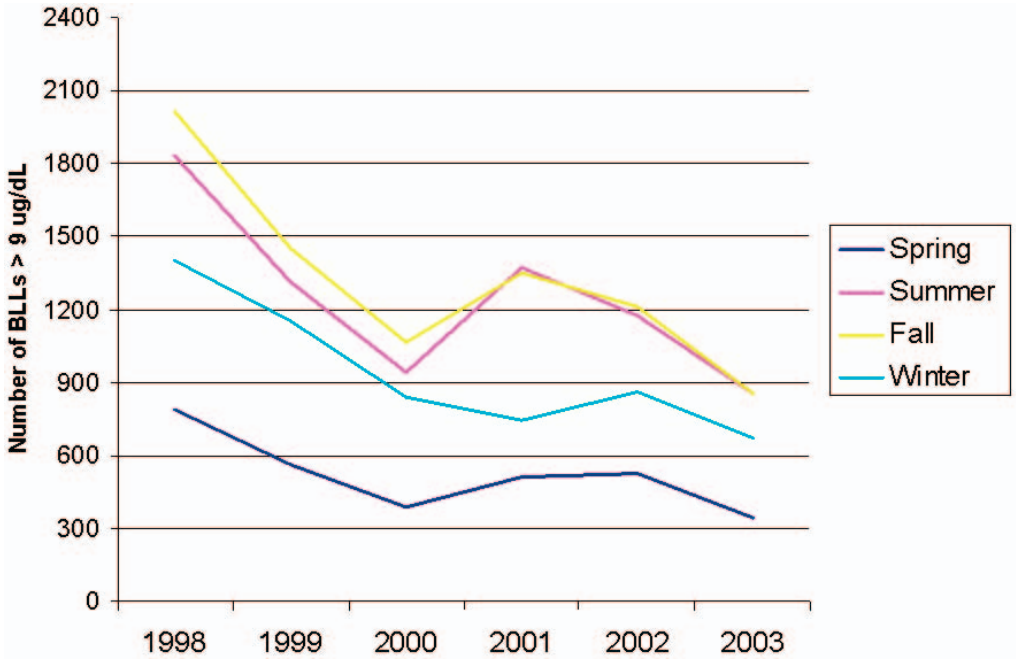


* Percent of tested children with BLL ≥ 10 µg/dL (calculated by the number of children < 72 months tested, divided by children < 72 months with confirmed tests).. Source: DCLPP&CP Database

Seasonal Trends

Seasonally, the prevalence of lead poisoning among children under the age of six years is higher during the summer and fall seasons. The number of lead poisoned children during the 2003 summer and fall seasons was 67% higher than the winter and spring seasons. This information allows the DCLPP&CP to assess the most effective time to begin our intervention and lead awareness efforts. It is believed that the increase of lead poisoning during the summer and fall seasons is due to the frequent opening and shutting of windows and doors where lead dust and paint chips are most commonly accumulated. Once lead dust is exposed to air it is easily dispersed into the atmosphere exposing children to contaminated lead dust. Children may also become more susceptible to being exposed to lead poisoning due to frequent outside activities (i.e. playing in dirt).

Figure 12: Seasonal Screening > 9 ug/dL*



* Seasons are defined as follows: Spring = Aril 1 - May 31; Summer = June 1 - August 31; Fall = September 1 - November 30; Winter = December 1 – March 31. Source: DCLPP&CP Database

Enforcement Laws and Procedures

The Detroit Childhood Lead Poisoning Prevention & Control program, a unit of the Environmental Health Services Division (Table D), is required and/or authorized under Health and Sanitation Section Chapter 24 Article 10 titled *Lead-Based Paint Poisoning Prevention*, to enforce lead safe compliance. These code enforcement practices protect the public's health and safety, and prevent and control environmental health hazards that may cause disease, injury, and nuisance conditions (see appendix C for a complete outline of enforceable laws under 24-10). The DCLPP&CP Environmental unit has an established protocol for performing environmental investigations, issuance of violation notices, and taking more aggressive actions towards homeowners that refuse to comply with violation notices. The protocol steps for environmental investigations and law enforcement are as follows:

1. An Environmental Lead Inspector / Risk Assessor goes to the property to perform an environmental investigation which consists of a visual interior and exterior inspection of the home, collection of dust wipes and soil samples, and the use of the hand held florescent lead analyzer (XRF) that allows the identification of the presence of lead.
2. If applicable, a violation notice is issued to the property owner. The property owner is given 60 days to correct the violations specified in the notice.
3. If the owner fails to comply with the issued violation notice their case is forwarded to an Administrative Hearing to further encourage voluntary compliance with the City of Detroit violation codes.
4. If the owner persists to be noncompliant, the case is marked as "unresolved," and transmitted to 36th District court for ruling.

If you need any additional information, you may call (313) 876-4212 to speak with a Lead Inspector or the Environmental Supervisor.

Agencies / Partners Providing Interim Controls & Abatement Services

DCLPP&CP partners with various community agencies throughout the city to provide lead education and prevention services to Detroit residents including lead testing, education and outreach activities, primary prevention services, and remediation services. Addressing properties that contain lead hazards is a priority at the federal, state, and local levels. As a result, departmental agencies throughout Detroit have been allotted monies, assisting owners and renters, to address residential lead hazard issues. Following are lists of remediation services available to the public:

Interim Control Services

CLEARCorps Detroit

Community Lead Education and Reduction Corporation (CLEARCorps) is a local community-based program, sponsored by the Greater Detroit Area Health Council (GDACH) to protect Detroit's children from lead poisoning. This program provides free education and outreach services to the community, churches, businesses, and health care providers; lead hazard reduction services in homes; and training services for parents, landlords, home renovators, and health care professionals on lead poisoning prevention strategies and lead specific cleaning techniques. For more information or services call (313) 924-4000.

Healthy Homes = Healthy Kids / Leadbusters Program

Healthy Homes = Healthy Kids is a non-profit organization. Their mission is to educate families about lead poisoning and help reduce exposures. Their services include: 1) educational workshops and presentations on reducing lead dust in the home and highlight proper nutrition for families and children; and 2) Home visits, dust sampling, and specialized cleaning to reduce indoor lead dust aimed at families with lead poisoned children and pregnant women. In addition to their services, they assist families for one year with cleaning supplies, follow-up visits, and referral information on abatement services available to them. For more information call (313) 961-4780.

Detroiters Working for Environmental Justice (DWEJ)

DWEJ selects homes for low-technology hazard control to reduce lead dust levels. Referrals are received from the DHWP Lead Program, the Community Action Against Asthma project, and other social service agencies. Referring agencies determine that at least one child in the home has a blood lead level exceeding 9 ug/dL. If assessed lead dust levels exceed the acceptable range according to HUD guidelines, interventions are performed. Once the home has been serviced, a clearance test is conducted to determine the success of the intervention.

In addition, family members receive a cleaning kit as well as nutrition tips to assist in reducing the child's exposure to lead dust. Follow up with families for re-inspection, and parent participation in the Detroit chapter of United Parents Against Lead (UPAL) are also encouraged. UPAL provides leadership development, policy information and advocacy training. For more information call (313) 821-1064.

Abatement Services

LEAP Detroit

The Lead Elimination Action Program (LEAP) is an initiative to reduce high lead levels in children 6 years and under, by providing grant money or low interest loans to abate lead hazards in rental and owner occupied properties located in zip codes 48213 or 48214. For more information or an application to see if you qualify you may call (313) 924-4004.

City of Detroit Planning and Development Department (P&DD)

The City of Detroit receives Community Development Block Grant (CDBG), HUD and HOME funds from the federal government. These funds are used to support a wide range of affordable housing programs designed to create better housing opportunities for low- to moderate-income residents. The major city programs that are available for lead abatement to Detroit residents are described as follows:

CHILD-HELP Lead Hazard Reduction Program - This program is designed to assist landlords whose tenants include children ages 1-5 years, in the remediation of lead-based paint. CHILD-HELP targets at-risk or exposed children in single and multi-family dwellings consisting of 1 to 4 units. The tenant must meet HUD eligibility income guidelines. The maximum funding is $24,950. For more information call (313) 628-2565.

Neighborhood Opportunity Fund (NOF) Minor Home Repair - Minor home repair assistance is available for Detroit low-income owner occupied units. The maximum funding per property where lead hazards exist is $24,950. Community organizations may also apply to administer the NOF Home Repair Program. For more information call (313) 628-2565.

Citywide Lead Hazard Reduction Program - This program is restricted to owner occupied homes to reduce lead hazards and repairs associated with lead to correct serious code violations and/or emergency repairs of those households with children under six years of age, especially those with elevated blood lead levels. The maximum funding per property is $24,950. For more information call (313) 628-2565.

Testing Services

If you are interested in having your child tested for lead you may either:

- ✔ Contact your primary care physician.
- ✔ Bring your child to DHWP for free lead testing (must be < 6 years of age) Monday - Friday, 8:00 a.m. - 4:00 p.m. No appointment is necessary. For more information call (313) 876-4202.
- ✔ If you are an elementary school, daycare center, Head Start Program, pre-school, or any other agency that provides services to children < 6 years of age, you may contact the Detroit Childhood Lead Poisoning Prevention & Control Program and our community health assistants will come to your location and do onsite testing. For more information call (313) 876-4212.

Vision for the Upcoming Year

Although there has been tremendous success in decreasing the number of children identified with lead poisoning in Detroit, there is more work to be done. The U.S. Centers for Disease Control and Prevention, the State of Michigan and, the City of Detroit are working together to achieve the goal of eliminating childhood lead poisoning as a public health concern by 2010. In an effort to attain this goal, the DCLPP&CP and its partners have developed a Strategic Lead Elimination Work Plan for the City of Detroit. The Strategic Lead Elimination Work Plan specifically outlines the activities to be executed to move Detroit towards the elimination of childhood lead poisoning by 2010. Much of the DCLPP&CP progress will depend upon the implementation of each goal:

- Reduce childhood lead poisoning through education and outreach initiatives
- Increase the number of children tested annually
- Target lead testing to high-risk populations in Detroit
- Prevent lead exposure among Detroit children
- Create lead-safe housing in Detroit
- Enhance legislation regarding the control of environmental lead hazards and the lead code enforcement in Detroit
- Acquire funding and resources to eliminate childhood lead poisoning

Effective implementation and close evaluation of these goals will move Detroit towards alleviating lead poisoning as a major public health concern.

References

1. Detroit Health and Wellness Promotion Office of Health Policy, Planning and Grants Management. 2000 Data Book. Detroit: DHWP, 2001.
2. www.census.gov
3. Centers for Disease Control and Prevention. Screening Young Children for Lead Poisoning: Guidance for State and Local Public Health Officials. Atlanta: CDC, 1997.
4. U.S. Centers for Disease Control and Prevention. Managing Elevated Blood Lead Levels Among Young Children: Recommendations from the Advisory Committee on Childhood Lead Poisoning Prevention. Atlanta: CDC; 2002.

Table A: City of Detroit Intervention Services for Lead Poisoned Children

Category	BLL[a]	Intervention
Medical Management [c]	10 [b] - 19 µg/dL	Contact the family to conduct a home visit, and medical providers to ensure proper medical management and follow-up. During home visits high-risk behaviors & possible sources of lead exposure are identified; and lead education, literature and nutrition assessments are also provided. These services are provided to all children < 6 years old with EBLLs.
Environmental Management [d]	≥ 20 µg/dL	A home investigation is performed to identify lead hazards; if applicable a violation notice is issued to correct lead hazards; enforcement of code violations
Medical Treatment [e]	≥ 45 µg/dL	The child undergoes chelation therapy; a complete inspection and interior remediation is done to the primary address prior to the child's release from the hospital, or the secondary address must be cleared of lead violations.

(a) Blood Lead Levels are measured in micrograms (µg) per deciliter (dL) of blood.

(b) CDC defines a child (<6 years) to have lead poisoning as a BLL ≥ 10 µg/dL.

(c) Performed by a public health nurse.

(d) Performed by an environmental inspector

(e) The child is referred to either Henry Ford, St. John's, or Children's Hospital.

Table B: City of Detroit Universal Testing Policy

Venous Blood Lead Level *		Capillary Screening *	
Blood Lead Level	**Action**	**Blood Lead Level**	**Action** *(Follow-up w/ venous test)*
< 10 µg/dL	Re-test in 1 year. Provide lead literature and education.		
10 - 14 µg/dL	Re-test every 3 months until lead level is < 10 µg/dL. Referral is made to the public health nurse for home visit, assessment and lead education.	10 - 14 µg/dL	Within 1 month
15 - 19 µg/dL	Re-test every 2 months until lead level is < 10 µg/dL. Follow same action as above.	15 - 19 µg/dL	Within 1 month
20 - 44 µg/dL	Re-test every 1-2 months until lead level is < 15 µg/dL. Public Health Nurse referral and environmental inspector referral for a home inspection.	20 - 44 µg/dL	Within 1 week
≥ 45 µg/dL	Re-test every month until lead level is < 15 µg/dL. Immediate physician follow-up, chelation therapy, home inspection and Public Health Nurse referral.	≥ 45 µg/dL	Within 24 hours

* See glossary for definitions

Table C: City of Detroit Lead Poison Enforcement Laws ±

Section 24-10-1: ***Definitions***

Section 24-10-2: ***Warning required on lead based paint containers***

(a) Prohibits sale of lead based paint without a warning label.

Section 24-10-3: ***Sale, etc, of certain paints prohibited; sale, etc., of certain items painted with lead based paint prohibited***

➢ Prohibits the sale of lead based paint:

(a) On interior or exterior surfaces of a dwelling, dwelling unit or child care facility.

(b) On toys, furniture, cooking, eating or drinking utensils or other household items painted with lead based paint.

Section 24-10-4: ***Lead based paint not to be applied to certain surfaces or household items***

➢ No person shall apply or cause to be applied any lead based paint to:

- Any interior or exterior surface of a dwelling, dwelling unit or child care facility.
- Any toy, furniture, cooking, eating or drinking utensil or other household item.

Section 24-10-5: ***Inspections; samples***

➢ The public health director or his designated representative may:

(a) Inspect any dwelling, dwelling unit, child care facility or related structure, factory, warehouse, or establishment selling or displaying paints and similar surface coatings, toys, furniture, cooking, eating, or drinking utensils or other household items.

(b) Take samples of applied or unapplied paints or similar coatings.

Section 24-10-6: ***Maintaining dwelling, etc., in condition presenting danger of lead poisoning to children; abatement of violations.***

(a) Any owner or agent can not keep or maintain any dwelling, dwelling unit or child care facility where the presence of lead based paint or any material containing more than five tenths (0.5) per centimeter by weight or one milligram per square centimeter, measured by an in situ analyzer device.

(b) Occupants of any dwelling, dwelling unit or childcare facility of any violations of subsection (a) of this section found on the premises shall be informed.

(c) A violation notice from subsection (a) of this section shall be issued to the owner of record, specifying the violation and ordering abatement within a reasonable time from the date of the issued notice.

(d) Failure to comply with an abatement order issued will result in an issued notice to the owner to appear at a hearing before a hearings officer, to show cause why the department of health should not take or cause to be taken whatever actions are necessary to abate the violation at the expense of the owner.

(e) All notices required by this section shall be in writing and sent by registered or certified mail to the owner.

(f) The hearing officer shall take testimony of the public health director or his representative, the owner and any other interested party and render a decision.

(g) The entire cost of abatement actions taken by the department of health shall be recoverable from each of the persons responsible for correcting violations.

Section 24-10-7: ***Emergency measures***

➢ Factors that define an emergency condition are:

- Presence of children on the premises.
- Presence or absence of occupants with elevated blood levels on the premises.
- Presence of flaking, peeling or accessible lead-based paint or other materials in excess of five-tenths (0.5) per centimeters by weight or on milligram per square centimeter measured by an in situ analyzer device.

➢ The public health director or his representative may issue an emergency order requiring that necessary actions be taken.

➢ If the emergency order is undeliverable to the owner the department of health may take necessary actions to abate the emergency.

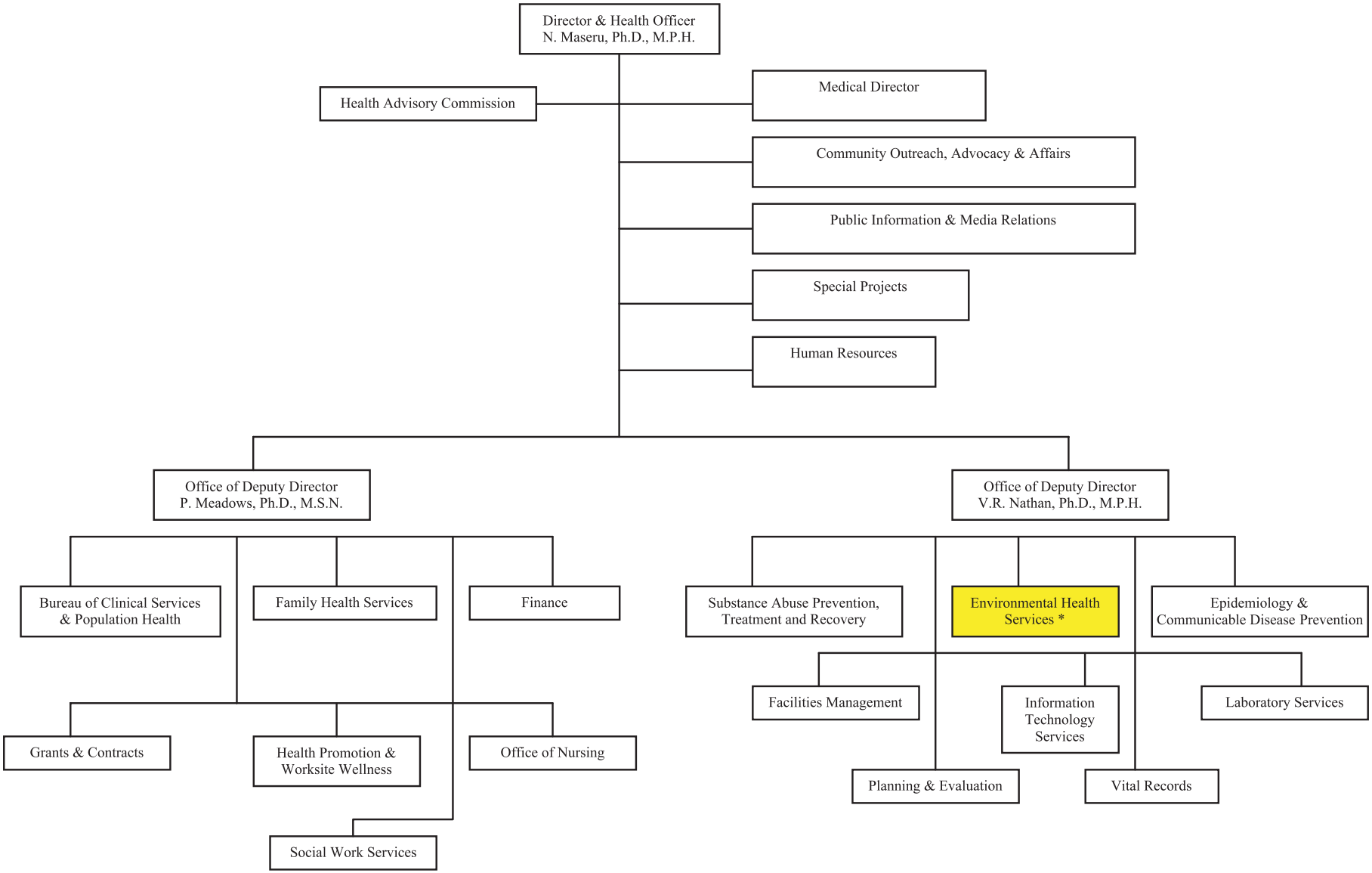
➢ The cost of the abatement shall be recoverable by placing a lien on the property.

Section 24-10-11: ***Termination of tenancy of certain occupants to avoid compliance with article***

➢ Prohibits residential lesser from terminating the tenancy of occupants with children to avoid compliance with any section of this article.

± To view Section 24 Article 10 in its entirety please visit our website at www.ci.detroit.mi.us/health/lead

Table D: Department of Health and Wellness Promotion Organizational Chart



* The highlighted box is the division under which the DCLPP&CP falls

Detroit Lead Stakeholders

American Indian Health and Family Services

Arab-American and Chalean Council

BADR for Development and Relief

Bagley Housing Association

Buildings and Safety Engineering

Child Care Coordinating Council

Children's Hospital of Michigan

City Connect

City Planning Commission

Community Based Organizations

Community Health and Social Services Center

Community Lead Education and Reduction Corporation

Department of Housing and Urban Development

Detroit City Council

Detroit Dental Health Project

Detroit Law Department

Detroit Lead Partnership

Detroit Mayor's Office

Detroit Hispanic Development Corporation

Detroit Housing Commission

Detroit Immunization Program

Detroit Neighborhood City Hall

Detroit Public Schools

Detroiters Working for Environmental Justice

Environmental Protection Agency

Faith-Based Organizations

Greater Detroit Area Health Council

Head Start Programs

Health Maintenance Organizations

Healthy Homes=Healthy Kids

Latino Family Services

Lead Elimination Action Program Detroit

Legal Aid & Defenders Association

Maternal Child Health Program

Michigan Association for Local Public Health

Michigan Department of Community Health

Michigan Department of Environmental Quality

Michigan State Housing Development Association

Midwest Health Plan

Molina Health Plan

National Association for the Advancement of Colored People

North American Indian Health

Planning and Development Department

Southwest Detroit Housing Corporation

Total Health Care

U.S. Centers for Disease Control and Prevention

United Community Housing Coalition

Wayne County Family Independent Agency

Wayne State Centers for Urban Studies

Wayne State University/Community Outreach Education Program

Weatherization and Energy Saving Programs

Women, Infants and Children Program

Glossary Terms

Abatement
A set of measures designed to permanently reduce or eliminate lead-based paint or hazards from public or residential buildings, in accordance with federal agency standards.

Capillary test
A blood sample collected by pricking the finger with a needle or lancet.

Case Management
Overseeing the services required to reduce a child's BLL below the level of concern (10 µg/dL).

Elevated Blood Lead Level
Defined as a blood lead level that exceeds 10 µg/dL of whole blood.

Incidence
The number of new lead poisoned children < 6 years that occur during a specific period of time in a population at risk for developing the disease. The population at risk for lead poisoning are children < 6 years in Detroit who have been screened for lead poisoning and has never had an elevated blood lead test.

Interim Controls
A temporary solution to remediate lead based-paint hazards to reduce the burden of lead contained in dust and paint chips when abatement is either being planned voluntarily by the building owner or mandated through the municipal courts. Interim control services, defined by HUD, include dust remediation, paint stabilization, reduction of friction surfaces, the alteration of occupant use patterns that result in the generation of lead dust, occupant education, and environmental monitoring.

Lead Inspections
A surface-by-surface investigation to determine the presence of lead-based paint as provided in section 302(c) of the Lead-Based Paint Poisoning Prevention Act, as amended (1.0 mg/cm^2 of lead or more than 0.5 percent lead by weight), and the provision of a report explaining the results of the investigation.

Prevalence
The number of children < 6 years in Detroit that have lead poisoning at a specific time.

Remediation
The act of correcting an error or deficiency to restore safe environmental conditions.

Risk Assessments
An on-site investigation to determine and report the existence, nature, severity, and location of lead based paint hazards in residential dwellings, including (1) information gathered regarding the age and history of the housing and occupancy by children under age six; (2) visual inspection; (3) limited wipe sampling or other environmental sampling techniques; (4) other activity as may be appropriate; and (5) provision of a report explaining the results of the investigation.

Risk Factor
A characteristic or event that either increases or decreases the probability of lead poisoning.

Screening
The act of testing children < 6 years old to identify those who have lead poisoning.

STELLAR
Stands for Systematic Tracking of Elevated Lead Levels and Remediation. STELLAR is an electronic software application, developed by the U.S. Centers for Disease Control and Prevention to track medical and environmental activities in lead poisoning cases.

Surveillance
A systematic collection of data pertaining to the occurrence of elevated blood lead levels over a specific time. It is also the management, organization, analysis and interpretation of the data; and the communication of data results to decision makers and other key stakeholders.

Venous test
A blood sample collected from the vein with a needle.

10 Simple Tips to Keep Kids & Homes Lead Safe

1. Insist that physicians test your child between 6 months and 6 years of age for lead every year, even if they seem healthy.
2. Have children wash their hands often, especially before eating and going to bed. Also wash children's bottles, pacifiers and toys.
3. Make sure children eat healthy, low-fat foods high in iron, calcium, and vitamin C.
4. Run cold tap water for one minute before using.
5. Wet clean window sills, floors, door jambs, and other surfaces of the home regularly (dry wiping scatters lead dust).
6. Use only cold water for making baby's formula, drinking and cooking.
7. Remove or wipe soil from shoes before entering the home.
8. Talk to your landlord about repairing surfaces with peeling or chipping paint.
9. Be sure to not bring lead home from work (auto mechanics, home remodeling etc.) on clothing. Wash work clothes separately from the rest of the family's clothes.
10. Use lead-safe work practices to avoid exposure to lead dust when remodeling or renovating (call 1-800-424-LEAD for guidelines).

12 Easy Steps to Personal Environmental Health Now

1. Read the label on house and garden chemicals: Follow instructions carefully; always provide adequate ventilation.
2. Put a carbon monoxide alarm in your home: Carbon monoxide is odorless, colorless, tasteless and can be deadly. Also test your home for radon, a naturally occurring toxic gas.
3. Grow plants: Plants beautify your environment, can absorb pollutants and can help keep lead dust from becoming airborne.
4. Put drugs, drain openers, and vitamins out of kids' reach.
5. Know the hazards of your job: Protect yourself from toxic exposures at work, and use care that toxins are not brought from work into your home.
6. Learn about lead: Lead is a toxic metal that was used in paint until 1978 and gasoline until 1986. If your home is older or has flaking or peeling paint, it may be hazardous to you and your family's health. Call the Lead Poisoning Prevention and Control program for more information: (313) 876-4212.
7. See if that 'cold' might be an allergy: Visit your doctor if you experience cold-like symptoms after possible exposure to dust or chemicals.
8. Learn about ozone: Minimize exertion on high-ozone days. Purchase and use gasoline after sundown.
9. Wash your hands: Many illnesses are prevented by regular, proper hand washing.
10. Watch pesticide drift: Make sure pesticide are used properly and do not contaminate unintended areas.
11. Avoid accidents: Use caution when operating power tools; make sure stairways and floors are clear of trip hazards; use care when cooking.
12. Dress for the occasion: Dress appropriately for cold or warm weather; use insect repellant properly during mosquito season.

kids cops clean

DETROIT DHWP DEPARTMENT OF HEALTH & WELLNESS PROMOTION

Department of Health & Wellness Promotion
Childhood Lead Poisoning Prevention & Control Program

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